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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/693,004	10/24/2003	Galen C. Hunt	MS1-1776US	9356
22801 7590 12/12/2007 LEE & HAYES PLLC 421 W RIVERSIDE AVENUE SUITE 500 SPOKANE, WA 99201			EXAMINER KHAKHAR, NIRAV K	
			ART UNIT	PAPER NUMBER
			2167	
			MAIL DATE	DELIVERY MODE
			12/12/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/693,004

Applicant(s)

HUNT ET AL.

Examiner

Nirav K. Khakhar

Art Unit

2167

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date See Continuation Sheet.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application
- ☐ Other: ____.

Continuation of Attachment(s) 3. Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :10/07/05, 11/08/06, 3/29/07, 7/19/07, 11/08/07.

DETAILED ACTION

Information Disclosure Statement

1. An applicant's duty of disclosure of material and information is not satisfied by presenting a patent examiner with "a mountain of largely irrelevant [material] from which he is presumed to have been able, with his expertise and with adequate time, to have found the critical [material]. It ignores the real world conditions under which examiners work." *Rohm & Haas Co. v. Crystal Chemical Co.*, 722 F.2d 1556, 1573 [220 USPQ 289] (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). (Emphasis in original).

Claim Rejections - 35 USC § 101

2. 35 U.S.C. § 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 1 – 16 and 23 – 27 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter.

As to **Claims 1 – 16**, the claims lack the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC § 101.

They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a composition of matter. As such, they

fail to fall within a statutory category. They are, at best, nonfunctional descriptive material per se.

As to **Claims 23 – 27**, the claims lack the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC § 101.

They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a composition of matter. As such, they fail to fall within a statutory category. They are, at best, functional descriptive material per se.

Descriptive material can be characterized as either “functional descriptive material” or “nonfunctional descriptive material.” Both types of “descriptive material” are nonstatutory when claimed as descriptive material per se, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized.

Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994).

Merely claiming nonfunctional descriptive material, i.e., abstract ideas, stored on a computer-readable medium, in a computer, or on an electromagnetic carrier

signal, does not make it statutory. See Diehr, 450 U.S. at 185-86, 209 USPQ at 8 (noting that the claims for an algorithm in Benson were unpatentable as abstract ideas because "[t]he sole practical application of the algorithm was in connection with the programming of a general purpose computer.").

In the interest of compact prosecution, examiner applies prior art to these claims as best understood, under the assumption that applicant will amend them to overcome this rejection.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1 – 40 are rejected under 35 U.S.C. § 102(b) as being anticipated by Caswell, et al., U.S. Pat. No. 6,336,138 (hereafter, "Caswell").

As to **Claim 1**, Caswell discloses: a schema comprising:

at least one definition that describes entities in a distributed computing system (col. 5, lines 49 – 52, referring to defining nodes of various types); and

at least one relationship that identifies links between the entities in the distributed computing system, wherein the schema is used by a development tool and a deployment tool (col. 5, lines 49 – 52, referring to defining network links).

As to **Claim 2**, Caswell discloses: the schema being further used by a management tool (col. 3, line 66 through col. 4, line 3, referring to the system being used to support management functions).

As to **Claim 3**, Caswell discloses: the schema allowing a user of the development tool to identify desired operational intentions (col. 5, lines 57 – 62, referring to the “health” or state of nodes).

As to **Claim 4**, Caswell discloses: the at least one definition includes a resource definition (col. 5, lines 57 – 62, referring to the “health” or state of nodes), a system definition (col. 6, lines 53 – 59, referring to application-specific attributes), and an endpoint definition (col. 19, lines 11 – 31, referring to the detection of packet attributes as they travel between nodes).

As to **Claim 5**, Caswell discloses: the at least one definition including a resource definition that describes a behavior associated with a system (col. 5, lines 57 – 62, referring to the “health” or state of nodes).

As to **Claim 6**, Caswell discloses: the at least one definition includes a system definition that describes a portion of an application deployed in the distributed computing system (col. 6, lines 53 – 59, referring to application-specific attributes).

As to **Claim 7**, Caswell discloses: the at least one definition including an endpoint definition that describes communication information associated with a system (col. 19, lines 11 – 31, referring to the detection of packet attributes as they travel between nodes).

As to **Claim 8**, Caswell discloses: the at least one relationship includes a containment relationship (col. 5, lines 49 – 52, referring to defining nodes of various types), a delegation relationship (col. 5, lines 49 – 52, referring to defining nodes of various types), a connections relationship (col. 19, lines 11 – 31, referring to the detection of packet attributes as they travel between nodes), a hosting relationship (col. 5, lines 53 – 57, referring to dependencies among nodes) and a reference relationship (col. 8, lines 14 – 30, referring to hierarchical relationships amongst nodes).

As to **Claim 9**, Caswell discloses: the at least one relationship including a containment relationship that describes the ability of a particular definition to

contain members of other definitions (col. 5, lines 49 – 52, referring to defining nodes of various types).

As to **Claim 10**, Caswell discloses: the at least one relationship includes a delegation relationship that exposes members contained in a particular definition (col. 5, lines 49 – 52, referring to defining nodes of various types).

As to **Claim 11**, Caswell discloses: the at least one relationship including a connections relationship that identifies available communication interactions between a plurality of definitions (col. 19, lines 11 – 31, referring to the detection of packet attributes as they travel between nodes).

As to **Claim 12**, Caswell discloses: the at least one relationship including a hosting relationship that describes dependencies between a plurality of definitions (col. 5, lines 53 – 57, referring to dependencies among nodes).

As to **Claim 13**, Caswell discloses: the at least one relationship includes a reference relationship that identifies ordering relationships between a plurality of definitions (col. 8, lines 14 – 30, referring to hierarchical relationships amongst nodes).

As to **Claim 14**, Caswell discloses: an abstract portion associated with templates for distributed applications (col. 5, lines 37 – 44, referring to template-driven modeling of a hypothetical network) and a concrete portion associated with particular implementations of distributed applications (col. 7, lines 60 – 65, referring to a service model instance which describes network elements that actually exist in a particular network).

As to **Claim 15**, Caswell discloses: the communication of settings across the plurality of relationships (col. 16, lines 20 – 22, referring to settings being derived and communicated).

As to **Claim 16**, Caswell discloses: the communication of behavioral information across the plurality of relationships (col. 19, lines 43 - 47, referring to the communication of entity "health").

As to **Claim 17**, Caswell discloses: one or more computer readable media having stored thereon a plurality of instructions that implement a schema, the schema comprising:
at least one system definition that describes a portion of an application associated with a distributed computing system (col. 6, lines 53 – 59, referring to application-specific attributes);

at least one resource definition that describes a behavior associated with the system (col. 5, lines 57 – 62, referring to the “health” or state of nodes); and at least one endpoint definition that describes communication information associated with the system (col. 19, lines 11 – 31, referring to the detection of packet attributes as they travel between nodes).

As to **Claim 18**, Caswell discloses: at least one relationship that identifies links between entities in the distributed computing system (col. 5, lines 49 – 52, referring to defining network links).

As to **Claim 19**, Caswell discloses: a containment relationship that describes the ability of a particular definition to contain members of other definitions (col. 5, lines 49 – 52, referring to defining nodes of various types).

As to **Claim 20**, Caswell discloses: a communication relationship that identifies available communication interactions between a plurality of definitions (col. 5, lines 49 – 52, referring to defining nodes of various types).

As to **Claim 21**, Caswell discloses: the schema being used by any of: a development tool, a deployment tool, or a management tool (col. 3, line 66 through col. 4, line 3, referring to the system being used to support management functions).

As to **Claim 22**, Caswell discloses: the schema models a target system on which the application will be installed (col. 7, lines 60 – 65, referring to a service model instance which describes network elements that actually exist in a particular network).

As to **Claim 23**, Caswell discloses: a design tool comprising:
a system definition model to enable abstract description of distributed computing systems and distributed applications (col. 5, lines 37 – 44, referring to template-driven modeling of a network); and
a schema to dictate how functional operations within the system definition model are to be specified (col. 5, lines 49 – 52, referring to defining nodes of various types).

As to **Claim 24**, Caswell discloses: the design tool being a distributed application development tool (col. 6, lines 53 – 59, referring to application-specific tools)..

As to **Claim 25**, Caswell discloses: the design tool being a distributed application deployment tool (col. 6, lines 53 – 59, referring to application-specific tools).

As to **Claim 26**, Caswell discloses: the design tool is a distributed application management tool (col. 3, line 66 through col. 4, line 3, referring to the system being used to support management functions).

As to **Claim 27**, Caswell discloses: the distributed applications being scale-invariant (col. 9, lines 32 – 46, referring to modeling a network regardless of geographic scope).

As to **Claim 28**, Caswell discloses: a data structure stored on one or more computer-readable media that is instantiated in accordance with a schema, the schema comprising:

- at least one system definition that describes a component of a distributed application (col. 5, lines 49 – 52, referring to defining nodes of various types);
- at least one resource definition that describes a behavior associated with the component (col. 5, lines 57 – 62, referring to the “health” or state of nodes);
- at least one endpoint definition that describes communication information associated with the component (col. 19, lines 11 – 31, referring to the detection of packet attributes as they travel between nodes);
- at least one containment relationship that describes the ability of a particular definition to contain members of other definitions (col. 5, lines 49 – 52, referring to defining nodes of various types);

at least one delegation relationship that exposes members contained in the particular definition 9 col. 5, lines 49 – 52, referring to defining nodes of various types);

at least one communication relationship that identifies available communication interactions between a plurality of definitions (col. 19, lines 11 – 31, referring to the detection of packet attributes as they travel between nodes);

at least one hosting relationship that describes dependencies between the plurality of definitions (col. 5, lines 53 – 57, referring to dependencies among nodes); and

at least one reference relationship that identifies ordering relationships between the plurality of definitions (col. 8, lines 14 – 30, referring to hierarchical relationships amongst nodes).

As to **Claim 29**, Caswell discloses: the distributed application being scale-invariant (col. 9, lines 32 – 46, referring to modeling a network regardless of geographic scope).

As to **Claim 30**, Caswell discloses: the schema being accessible by an application development tool and an application deployment tool (col. 6, lines 53 – 59, referring to application-specific tools).

As to **Claim 31**, Caswell discloses: the schema being accessible by: an application deployment tool (col. 6, lines 53 – 59, referring to application-specific tools) and an application management tool (col. 3, line 66 through col. 4, line 3, referring to the system being used to support management functions).

As to **Claim 32**, Caswell discloses: the schema being accessible by: an application development tool; an application deployment tool (col. 6, lines 53 – 59, referring to application-specific tools); and an application management tool (col. 3, line 66 through col. 4, line 3, referring to the system being used to support management functions).

As to **Claim 33**, Caswell discloses: a method comprising: creating a data structure in accordance with a schema, the schema defining:
at least one definition that describes entities in a distributed computing system (col. 5, lines 49 – 52, referring to defining nodes of various types),
at least one containment relationship that describes the ability of a particular definition to contain members of other definitions (col. 5, lines 49 – 52, referring to defining nodes of various types),
at least one delegation relationship that exposes members contained in the particular definition (col. 5, lines 49 – 52, referring to defining nodes of various types),

at least one communication relationship that identifies available communication interactions between a plurality of definitions (col. 19, lines 11 – 31, referring to the detection of packet attributes as they travel between nodes),
at least one hosting relationship that describes dependencies between the plurality of definitions (col. 5, lines 53 – 57, referring to dependencies among nodes),
at least one reference relationship that identifies ordering relationships between the plurality of definitions (col. 8, lines 14 – 30, referring to hierarchical relationships amongst nodes); and
populating the data structure (col. 7, lines 36 – 50, referring to generating a model of a network based on discovered metrics and attributes).

As to **Claim 34**, Caswell discloses: loading a definition that describes entities in a distributed computing system (col. 5, lines 49 – 52, referring to defining nodes of various types); and
loading a relationship that identifies communication links between the entities in the distributed computing system, wherein the definition and relationship data is used during development and deployment of the distributed computing system (col. 5, lines 49 – 52, referring to defining network links).

As to **Claim 35**, Caswell discloses: the definition and relationship data being further used during management of the distributed computing system (col. 3, line

66 through col. 4, line 3, referring to the system being used to support management functions).

As to **Claim 36**, Caswell discloses: the definition including a resource definition (col. 5, lines 57 – 62, referring to the “health” or state of nodes), a system definition (col. 6, lines 53 – 59, referring to application-specific attributes) and an endpoint definition (col. 19, lines 11 – 31, referring to the detection of packet attributes as they travel between nodes).

As to **Claim 37**, Caswell discloses: the relationship including a containment relationship (col. 5, lines 49 – 52, referring to defining nodes of various types), a delegation relationship (col. 5, lines 49 – 52, referring to defining nodes of various types), a communication relationship (col. 19, lines 11 – 31, referring to the detection of packet attributes as they travel between nodes), a hosting relationship (col. 5, lines 53 – 57, referring to dependencies among nodes) and a reference relationship (col. 8, lines 14 – 30, referring to hierarchical relationships amongst nodes).

As to **Claim 38**, Caswell discloses: a method comprising:
loading a definition that describes entities in a distributed computing system (col. 5, lines 49 – 52, referring to defining nodes of various types); and

loading a relationship that identifies communication links between the entities in the distributed computing system (col. 5, lines 49 – 52, referring to defining network links), wherein the definition and relationship data is used during development, deployment and management of the distributed computing system (col. 3, line 66 through col. 4, line 3, referring to the system being used to support management functions).

As to **Claim 39**, Caswell discloses: the definition including a resource definition (col. 5, lines 57 – 62, referring to the “health” or state of nodes), a system definition (col. 6, lines 53 – 59, referring to application-specific attributes) and an endpoint definition (col. 19, lines 11 – 31, referring to the detection of packet attributes as they travel between nodes).

As to **Claim 40**, Caswell discloses: the relationship including a containment relationship (col. 5, lines 49 – 52, referring to defining nodes of various types), a delegation relationship (col. 5, lines 49 – 52, referring to defining nodes of various types), a communication relationship (col. 19, lines 11 – 31, referring to the detection of packet attributes as they travel between nodes), a hosting relationship (col. 5, lines 53 – 57, referring to dependencies among nodes) and a reference relationship (col. 8, lines 14 – 30, referring to hierarchical relationships amongst nodes).

Conclusion

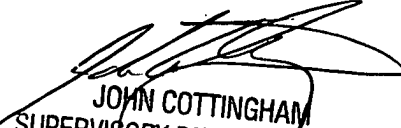
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nirav K. Khakhar whose telephone number is (571) 270-1004. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Cottingham can be reached on (571) 272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nirav K Khakhar
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